

Title (en)  
METHOD AND APPARATUS FOR AUTOMATICALLY READING BAR CODE SYMBOLS

Title (de)  
VERFAHREN UND GERÄT ZUM AUTOMATISCHEN LESEN VON STREIFENKODE-SYMBOLEN

Title (fr)  
PROCEDE ET APPAREIL DE LECTURE AUTOMATIQUE DE SYMBOLES DE CODES A BARRES

Publication  
**EP 0557508 B1 19990107 (EN)**

Application  
**EP 92920244 A 19920917**

Priority  
• US 76112391 A 19910917  
• US 9207898 W 19920917

Abstract (en)  
[origin: EP0871138A2] Method and apparatus for automatically reading bar code symbols is disclosed. One aspect of the present invention concerns a method of reading bar code symbols using an automatic hand-holdable bar code symbol reading device. In general, the automatic bar code symbol reading device comprises a hand-holdable housing containing operative elements which provide an object detection field and a scan field each defined external to the housing. The method involves automatically detecting the presence of an object within the object detection field by sensing energy reflected off the object. In a preferred embodiment, the energy reflected off the object is IR radiation produced from an object sensing energy source disposed within the housing. In automatic response to the detection of the object within the object detection field, the hand-holdable device detects the presence of a bar code aligned by the user within the scan field using a laser beam produced within the housing. Then, in automatic response to the detection of a bar code in the scan field, the automatic hand-holdable bar code symbol reading device reads the detected bar code in the scan field by producing scan data signals from the detected bar code and thereafter collecting and analyzing the same. Another aspect of the present invention concerns a hand-holdable data collection device adapted for use with the automatic bar code symbol reading device to form a portable symbol reading system which is versatile and simple to use. <IMAGE>

IPC 1-7  
**G06K 7/10**

IPC 8 full level  
**G02B 26/10** (2006.01); **G06K 7/10** (2006.01); **G06K 7/14** (2006.01); **G06K 17/00** (2006.01)

CPC (source: EP US)  
**G02B 26/106** (2013.01 - EP US); **G06K 7/10** (2013.01 - EP US); **G06K 7/10564** (2013.01 - EP US); **G06K 7/10584** (2013.01 - EP US); **G06K 7/10594** (2013.01 - EP US); **G06K 7/10603** (2013.01 - EP US); **G06K 7/10663** (2013.01 - EP US); **G06K 7/10673** (2013.01 - EP US); **G06K 7/10693** (2013.01 - EP US); **G06K 7/10702** (2013.01 - EP US); **G06K 7/10792** (2013.01 - EP US); **G06K 7/10801** (2013.01 - EP US); **G06K 7/10811** (2013.01 - EP US); **G06K 7/10851** (2013.01 - EP US); **G06K 7/10861** (2013.01 - EP US); **G06K 7/10871** (2013.01 - EP US); **G06K 7/10881** (2013.01 - EP US); **G06K 7/10891** (2013.01 - EP US); **G06K 7/109** (2013.01 - EP US); **G06K 7/14** (2013.01 - EP US); **G06K 7/1443** (2013.01 - EP US); **G06K 17/0022** (2013.01 - EP US); **G06K 2207/1012** (2013.01 - EP US); **G06K 2207/1016** (2013.01 - EP US); **G06K 2207/1017** (2013.01 - EP US); **G06K 2207/1018** (2013.01 - EP US)

Designated contracting state (EPC)  
AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL SE

DOCDB simple family (publication)  
**WO 9306565 A1 19930401**; AT E175509 T1 19990115; AT E227864 T1 20021115; CA 2096427 C 19961105; DE 69228111 D1 19990218; DE 69228111 T2 19990826; DE 69232850 D1 20021219; DE 69232850 T2 20030327; DK 0557508 T3 19990830; EP 0557508 A1 19930901; EP 0557508 A4 19941207; EP 0557508 B1 19990107; EP 0871138 A2 19981014; EP 0871138 A3 19991215; EP 0871138 B1 20021113; ES 2129044 T3 19990601; JP 3240517 B2 20011217; JP H06502949 A 19940331; US 5340971 A 19940823; US 5525789 A 19960611; US 5528024 A 19960618; US 5789730 A 19980804; US 5825012 A 19981020; US 5837989 A 19981117; US 5886337 A 19990323

DOCDB simple family (application)  
**US 9207898 W 19920917**; AT 92920244 T 19920917; AT 98201375 T 19920917; CA 2096427 A 19920917; DE 69228111 T 19920917; DE 69232850 T 19920917; DK 92920244 T 19920917; EP 92920244 A 19920917; EP 98201375 A 19920917; ES 92920244 T 19920917; JP 50624293 A 19920917; US 29349394 A 19940819; US 29349494 A 19940819; US 65547996 A 19960530; US 66064396 A 19960607; US 66372696 A 19960614; US 70891496 A 19960905; US 76112391 A 19910917